



# UNITED STATES PATENT AND TRADEMARK OFFICE

W  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,297	09/10/2003	Myeon-soon Hwang	1572.1157	2457
21171	7590	04/07/2005	EXAMINER	
STAAS & HALSEY LLP			PENG, CHARLIE YU	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.				
WASHINGTON, DC 20005			2883	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/658,297	HWANG ET AL.
	Examiner Charlie Peng	Art Unit 2883

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-36 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4, 10, 12-16, 22, 24-29 and 35 is/are rejected.  
 7) Claim(s) 5-11, 17-21, 23, 30-34 and 36 is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 10 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____.	6) <input type="checkbox"/> Other: ____.

## DETAILED ACTION

### *Election/Restrictions*

The application was previously subjected to requirement for restriction. The Applicants traversed the requirement for restriction. The Examiner *disagrees* with the Applicants on their reasoning for traversing the restriction, but this is nonetheless rendered moot by virtue of the Applicants' amending the claims in Invention II to place them in the same group as Invention I. Group I has been elected by the Applicants. All claims will be examined as amended. The Applicants are reminded that the office generally does not permit the applicant to shift to claiming another invention after an election is made and action given on the elected subject matter. (MPEP 819)

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 4, 12-16, and 24-29 are rejected under 35 U.S.C. §103(a) as being anticipated by U.S. PGPub 2002/0064354 to Ware et al. in view of U.S. Patent 5,946,986. Ware teaches a fiber preparation unit **100** which includes a main body **101** (a plate that acts as the base of the unit, see at least **Figs. 1A-1C** and **[0026]-[0035]**), a

carriage **104** (jig) able to slide along on the main body, and an optical fiber **105** coupled to the carriage via a fiber holder. Ware also teaches a cleaving station **103** proximate to the carriage on the main body to cleave the optical fiber. The unit also includes a stripping station **102** (stripper) proximate to the carriage. The stripping station further includes a cleaning device **106** for cleaning the tip of the stripped optical fiber. Ware does not teach the details of the stripping station, but the stripping station may include any type of optical fiber stripping devices such as ones in accordance with U.S. Patent 5,946,986 (or 6,023,996, both to Dodge et al.), which use a heating element to strip off the coating in one piece as the carriage is moved. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a stripping station as taught by Dodge in the fiber preparation unit as taught by Ware. The motivation would be to soften the coating and then nicks it with a blade so that the coating can be pulled off more easily. Furthermore, Ware specifically stated that Dodge can be part of the invention. [0030]

With regard to claims 2, 3, 14, 15, 27, and 28, Dodge further teaches the carriage to be configured to receive an optical fiber holder, which has a groove **48** and a holder **28** with a hinged cover **50** (See at least Fig. 8 of 5,946,986).

With regard to claim 4, 16, and 29, Ware still further teaches the cleaning station **106** may operate by spraying a solvent (i.e. cleaner/alcohol) onto the optical fiber. A hole or orifice for injection is inherent to a spraying action.

With regard to claim 10, 22, and 35, Ware still further teaches translation of the carriage by sliding may be accomplished via a rail system by means of motors, as the

stripping action occurs simultaneously to the translation of the carriage away from the stripping station. (See at least [0026]-[0027])

***Allowable Subject Matter***

Claims 5, 17, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Ware teaches the base plate, the sliding jib upon the base plate, the stripper, and the cleaver. Ware also teaches that the cleaver (cleaving station 103) may cleave optical fibers in multiple steps and may include any type of optical fiber cleaving device. Ware does not teach the cleaving station to have a gripper, a cutting wheel, and a compression block. Halpin teaches an optical fiber cleaver having a fiber connector block 103 (the gripper) that holds the fiber before and after cleaving, a scribe assembly 120 (the cutting wheel) that may have a scribing wheel 162 (Column 8) to be drawn perpendicularly across the optical fiber to make a scribed line (or a cleaved line), and a chuck assembly 112 (the compression block) that has an internal compression spring. However, Halpin teaches the optical fiber cleavage by tension (the fiber is pulled apart by the spring at the cleaved line) and not compression as claimed by the Applicants. The examiner finds no obvious reasons for one having ordinary skill in the art at the time the invention was made to combine and modify Ware and Halpin in order to arrive at the present application. It is the examiner's opinion that the prior art of record, taken alone or in combination, fails to

disclose or render obvious in combination with the rest of the limitations of the base claim.

Claims 6-9, 18-21, and 31-34 are also objected to but allowable by virtue of being dependent upon claims 5, 17, and 30.

Referring to claims 11, 23, and 36, Dodge and Ware do not teach a driving unit having a motor, a timing pulley, and a cam used to operate the jig and the stripper. Nor do they teach a back-and-forth motion of the stripper while being operated by the motor. The Examiner further finds no prior art, taken alone or in combination with Dodge and Ware, disclosing all the limitations of said claims. It is the examiner's opinion that the prior art of record, taken alone or in combination, fails to disclose or render obvious in combination with the rest of the limitations of the base claim.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure dealing with optical fiber end preparation and cleaving.

U.S. Patent 6,122,936 to Csipkes et al.;

U.S. Patent 6,321,621 to Stepan;

U.S. PGPub 2002/0145731 to Kirtler et al.;

U.S. Patent 6,676,763 to Johnson, III et al.;

U.S. Patent 6,668,128 to Hattori et al.;

U.S. Patent 6,052,880 to Basavanhally;

U.S. Patent 6,577,804 to Murakami et al.;

U.S. Patent 6,099,392 to Wiegand et al.;

U.S. Patent 6,816,662 to Doss et al.;

U.S. Patent 4,445,632 to Margolin et al.;

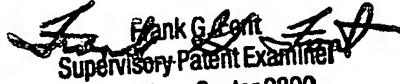
U.S. Patent 5,395,025 to Borer et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 8:30 am - 5 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charlie Peng  
Charlie.Peng@uspto.gov

  
Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800